

# DEVON AND SOMERSET LOCAL BROADBAND PLAN:

Application for spring 2011 BDUK Award  
Round Funding

*Commercially and personally sensitive  
information removed*



## **APPLICANT INFORMATION**

**Project Name:** DEVON AND SOMERSET BROADBAND PLAN

**Lead organisation** - include address with and postcode and type of organisation  
(e.g. Local Authority, LEP):

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**If the bid is a joint proposal, please enter the names of all participating bodies and specify the co-ordinating authority**

Somerset County Council (co-ordinating authority)  
Devon County Council  
North Somerset Council  
Torbay Council  
Plymouth City Council

**Start Date of Project:** 01 May 2011

**End Date of Project:** 31 April 2020

## **SECTION A – PROJECT OVERVIEW**

### **A1. Vision and Strategic Context**

#### **1.0 Summary**

Delivering this Plan will deliver a step change in our broadband infrastructure and is the single greatest contribution we can make to drive economic growth and improve the quality of life for all our residents in the next decade. It also substantially delivers the Coalition Government's aim to create the best network in Europe by ensuring superfast broadband runs from Bristol to the Isles of Scilly. This Plan is a joint approach covering the five local authority areas of Devon and Somerset County Councils, Torbay Council and Plymouth City Council (which make up the Heart of the South West Local Enterprise Partnership) and North Somerset Council (part of the West of England Local Enterprise Partnership). It is backed by all 19 of our MPs and has been shaped by significant input from our businesses and communities. To demonstrate our commitment the local authorities are making a significant multi-million contribution (capital and revenue) to make this happen.

#### **2.0 Vision, Aims and Strategic Outcomes**

##### **Our Vision is to**

**'deliver faster Broadband for all by 2015 and Superfast Broadband for all by 2020'**

##### **2.1 Our aims:**

- to ensure access to significantly faster broadband for every business and community by 2015 across Devon and Somerset, with the vast majority having access to superfast broadband, and by 2020 to deliver superfast broadband to all;
- to deliver this at a fair price and through an open network which attracts a wide variety of retail service providers,
- to work with the public and voluntary sectors to delivering digital inclusion and transforming access to services for rural areas.
- to ensure rural communities benefit at the same time as our urban areas and
- to unlock economic growth and create more and better jobs, deliver digital inclusion and transform access to services for rural areas through the effective use and adoption of ICT

##### **2.2 Our targets**

- deliver 100% broadband coverage by 2015, with a minimum of 85% being superfast broadband. We are mindful of the Government's target to achieve 90% super fast coverage by 2015..
- deliver 50% take-up, with businesses and the public sector making the most of this opportunity by 2015
- deliver superfast broadband for all by 2020
- increasing our GVA by £0.75 billion by 2020

A suite of performance indicators are being developed to measure achievement against this vision, including availability of superfast broadband, take-up of superfast broadband, average speeds, measures of service reliability and satisfaction, benchmarking of pricing. Performance indicators will also measure our success in delivering our expected strategic benefits, including in creating new and better jobs, improving productivity, business start-up and survival, increased inward investment, increasing employment in knowledge intensive and creative sectors, delivering public sector efficiencies, increased use of online public sector services, supporting increased home working, delivering measurable service improvements in the public sector.

Securing support from BDUK to implement this Plan will ensure superfast broadband runs from Bristol to the Isles of Scilly, achieving a major component of the Coalition Government's aim for the United Kingdom to have the best superfast broadband network in Europe by 2015. Our approach has been driven by what businesses and citizens have told us they need, recorded in our Demand Registration Survey and through our Stakeholder Engagement. Our approach tackles the most challenging topography and terrain in Southern England (See Maps 4 and 5 in Technical Annex), delivering across two national parks and a high proportion of remote upland areas. By working together we gain the critical mass and scale needed to attract private sector investment and with a single procurement exercise, deliver the best value for money solution across a challenging physical and economic geography.

The Plan has the outright support of all 19 MPs and MEPs, the Heart of the South West Local Enterprise Partnership (LEP) and the West of England LEP, our wider public sector partners, businesses, from EDF to Haynes Publishing, key business organisations including Chambers of Commerce, the Institute of Directors and

the Federation of Small Businesses and district councils. All see improved broadband as the golden thread underpinning our future vitality.

The priorities of our LEPs are to improve business productivity and average wages to national levels and create a significant increase in new private sector jobs by 2015. Both LEPs see the implementation of this Plan as critical to achieving these ambitions and are committed to working with us to deliver our vision, providing a powerful national demonstration of Local Enterprise Partnerships working collaboratively to create the right economic conditions for businesses to grow.

The Plan is supported by our wider public sector partners, including FE colleges, the NHS and the Emergency Services as it significantly contributes to the transformation of public services. These services include telehealth, improving patient care in their homes; community safety through greater and more efficient use of CCTV; law enforcement through improving remote working and communications, and distance learning providing greater access to online education to our young people and adults.

Local authorities across Devon and Somerset at all levels have made superfast broadband one of their top priorities, as demonstrated by the significant financial commitment they are making to this plan. It is embedded in economic development plans, local development frameworks and relevant corporate strategies.

By faster or standard or universal broadband we mean broadband of at least 2Mbps – and delivered in a future-proofed way that enables future upgrades to superfast broadband. Superfast broadband means broadband capable of delivering at least 20Mbps. Our approach will deliver a robust and reliable service with the bandwidth, upload and download speeds we need.

This Plan has been directed by a Joint Programme Board, consisting of the Chief Executives, Portfolio Holders and Senior Officers of Somerset and Devon County Councils and North Somerset Council with input from businesses and the public sector in Torbay and Plymouth.

### 3.0 Our contribution to national goals

Delivering our plan will:

- Provide a powerful national demonstration of our Local Enterprise Partnerships in action and working collaboratively on a shared agenda – responding to one of our business community's highest barriers to growth.
- Increasing coverage of superfast broadband from 62% to 85% by 2015 will play a significant part in the Coalition Government achieving its ambition to deliver the best broadband network in Europe by 2015
- Enable around 700,000 more people and over 10,000 more businesses to access superfast broadband.
- Contribute to national economic recovery through increasing our GVA by £0.75 billion per annum by 2020.
- Support the delivery of the Big Society through the key role for community champions in our demand stimulation programme, and through developing community broadband hubs.

### 4.0 Strategic Need – the scale of our challenge

The private sector has only delivered or committed to deliver superfast broadband to 39% of our business premises and 38% of our homes. Current average broadband speeds are around 8.2Mbps, according to BDUK but over 21% of households and 24% businesses are receiving less than 1Mbps according to our own analysis. Our forecasts supported by independent industry analysis show by 2015 that the private sector alone will only deliver superfast broadband to 62% of our premises. This will leave 38% of our residential premises and 31% of our business premises without superfast broadband: around 700,000 people and businesses with a turnover of around £9 billion. (See Map 2 in Technical Annex). Outlined below is the strategic need for improved broadband for our businesses, communities, users of public services and citizens.

#### 4.1 Securing economic growth

Our economy is diverse – including key urban growth areas such as Plymouth, Exeter, Weston-Super-Mare and Taunton, rural economies centred on smaller market and coastal towns, and deeply rural and upland economies in West Somerset and North Devon with few service centres. We estimate that our plan will raise annual GVA by £0.75 billion per annum by 2020. Our plan will deliver economic growth by:

- **Improving connectivity and access to markets:** Our peripheral location in the South West and sparse population means that distance to market is a significant issue for our economy – productivity falls by 0.7% every 100 miles from London. Limitations in our road network, and the decision not to electrify rail connections to the far south west adds to our competitive disadvantage. Our survey

responses from 1,363 businesses and residents show that superfast broadband is key to enabling them to access new markets.

- **Improving business productivity:** The productivity of our area measured as output per worker is £34,738, and is significantly below the national average of £43,052. Better broadband will underpin productivity improvements, through cost savings from adopting smart technologies, achieving labour and process improvements, access to new customers and suppliers, increasing online sales and through increased innovation.
- **Strengthening our rural economy:** Our rural economy faces significant barriers to growth: a lack of proximity to market, access to finance, difficulties in accessing business support, to name but a few. Superfast broadband will enable the LEPS and their delivery partners more effectively overcome these issues, encouraging SMEs to remain in rural areas and provide vital jobs and income. This is demonstrated by the leading food producer Yeo Valley Organic's support for our Plan: *"The mainly rural locations of our various business sites is a key part of what we are and therefore it is greatly encouraging to learn of your bid and I fully support your initiative. Furthermore, I would encourage you to be more ambitious in your objectives as 2Mbps is unlikely to be sufficient for very long."*
- **Helping our small businesses grow:** There are 65,455 businesses in our area. Our economy, especially in rural areas, is highly dependent upon small businesses –25% of our workforce is employed in a business employing fewer than 10 people, compared to 21% nationally. This represents a significant opportunity in that small businesses are often best placed to respond quickly to the opportunities that better broadband will enable – reaching new markets, working more efficiently, and growing. It also represents a challenge which we have recognised for our demand stimulation programme in that some small businesses are not fully aware of the benefits superfast broadband can bring to their businesses.
- **Driving inward investment:** Many businesses are attracted to the environment and lifestyle on offer in our area. Evidence from our inward investment agencies shows that poor broadband is a key barrier for businesses choosing to relocate here – our Plan will address this.
- **Supporting the self-employed:** Better broadband is also vital to the self-employed, who often rely on residential broadband connections. Overall our area has more self employed people (15.7%) compared to the national average (13.7%) – and in many of our rural districts such as West Devon, Torridge and West Somerset around a quarter of the working age population is self employed.
- **Improving skills and wages:** There are high levels of part-time working in our economy, and our area has a lower skilled and lower waged economy than the national average. With the exception of North Somerset average workplace earnings are below the national average across the whole area – over 25% lower in some Districts. Young people's participation in education and work based learning is below the national average across the whole area. Whilst broadband alone will not address these challenges, better broadband is an essential ingredient in addressing this: for example more than 60% of those people not currently considering higher education said that the ability to study closer to home is a factor which would encourage them to change their view – and better broadband can make higher education more accessible. Improving skills levels will have a significant impact on our economy – 22% of employers in Devon and 20% of employers in Somerset report skills gaps.
- **Tackling displacement to neighbouring areas:** Torridge and West Devon currently experience some of the slowest broadband speeds in the UK and the area suffers from among the lowest levels of pay and business productivity. This is compounded by neighbouring Cornwall, with its EU funded infrastructure investments, attracting our businesses to relocate and eroding our competitiveness. It is essential now to ensure that areas such as these are not further disadvantaged by their peripheral location and the lack of access to superfast broadband. To our north, the market will largely deliver superfast broadband to Bristol, which also risks displacing businesses from our more rural areas.
- **Supporting the low carbon sector:** The Heart of the South West LEP has identified low carbon energy as a key growth sector. Part of our strategy is to create a dynamic supply chain for the proposed new nuclear power station at Hinkley Point – the first of a planned new generation of such power stations and hence nationally critical to the resurgence of this industry. This provides a one-off opportunity for our area to develop a UK-based supply chain for the nuclear new build industry as a whole. These are high tech jobs that may not come to the UK if the right conditions, such as superfast broadband, are not in place. This is a real opportunity for UK plc. The developer, EDF Energy, recognise the importance of broadband to achieving this and fully support our plans: *"Superfast Broadband has the potential to attract new businesses to a [low carbon] cluster but also to support quality of life by increasing the potential for home working and remote working for the emerging workforce as well as developing the rural economy, enhancing the overall image of Somerset. Creating a strong identity for Somerset as a low carbon economy will reinforce the attractiveness of the low carbon cluster and support further new investment and a highly skilled and demanding workforce."*

- **Supporting other key growth sectors:** Our Plan will underpin the growth in key sectors which depend upon superfast broadband, including the extension of the Bristol creative cluster into North Somerset, and the development of a hi-tech industries cluster in Torbay. Growing the knowledge economy is a key priority for our LEP that critically depends upon having the right broadband infrastructure in place – the knowledge economy currently accounts for 46.1% of employment (compared to 54.2% for England as a whole). Other key sectors for our economy include food and drink, land and tourism sectors, advanced engineering and aerospace.
- **Reducing public sector dependence:** We are highly dependent on the public sector with 33% of our workforce employed in public sector jobs, rising to 40% in urban areas. Superfast broadband is key if we are to support new businesses to start and grow, and attract inward investment into our area to reduce our reliance on the public sector.
- **Compliance to regulation and Government Policy:** Many of our SMEs and Communities are struggling to comply with regulations and Government policy, directly caused by poor connectivity. Farmers need to submit online claims to the rural payments agency, new companies are required to submit VAT returns online, local government issue their procurements online, parish councils are required to liaise with HMRC. The time and effort endured to undertake these tasks represents a real burden and cost, and is not one shared by their urban counter-parts.

#### 4.2 Underpinning public sector transformation

Superfast broadband, and ensuring that everyone has access to a decent level of broadband, is critical to delivering public sector transformation and giving equal opportunities to users in rural locations to those in our urban areas. Realising the time and cost efficiencies to support the wide scale transformation and modernisation of public services depends upon good broadband connections to homes and public sector locations. Our demand stimulation programme will support public users gain the motivation and skills to use ICT. Examples of how this project will support and align with the wider public sector agenda for service transformation are:

- **Public sector flexible working:** Somerset County Council's Smart Office programme, North Somerset's smarter working programme with strategic partner Agilisys and Devon County Council's flexible working policy, encouraging effective home working to improve productivity and reducing commuter trips.
- **Supporting the delivery of telehealth:** A growing area of healthcare is 'telehealth' where patients can be monitored in their homes resulting in more efficient services and greater wellbeing. In their support for this Plan. NHS Devon said "...telehealth gives choice for the patient. This requires good quality internet to each of these patients. And NHS Somerset said "the NHS is now moving to offer its services to the general public via the internet. A high quality broadband infrastructure is becoming increasingly essential to make this happen."
- **Increasing efficiency across our Emergency Services:** Supporting communications and remote working is a key agenda for our Emergency Services and having good connectivity is vital to achieve this. In supporting our bid, Avon and Somerset Constabulary highlighted their plans to harness superfast broadband to create a better connected and more efficient environment for the delivery and management of law and order, where officers and citizens can communicate via video and the web, where officers and staff can collaborate in real time through handheld and remote devices, and where officers can track and monitor offending behaviour via CCTV.
- **Online education and skills support:** With a sparsely populated area, being able to provide virtual education and learning platforms is a critical and efficient service for our FE colleges. Using the internet as a learning and collaboration resource is also common practice across our primary and secondary schools and poor connectivity is creating a learning divide between our urban and rural communities. Skills provision and life long learning opportunities offered by colleges, through libraries and the HE sector to adults suffers in the same way.

#### 4.3 Ensuring the vitality of our communities

Our communities have made it clear that faster and more reliable broadband is one of the most important issues to them – over 3,000 of them responded to our survey. We have a significant ageing population (21.5% of our population is aged 65 and over, and almost 30% in some of our Districts), low population densities, insecure employment and pockets of deprivation. Access to jobs, education, services and healthcare are often poor for our rural communities. Too many of our older people are isolated and unable to remain in their own homes. Too many of our young people leave the area for education or employment opportunities - superfast broadband is key to delivering higher education in Somerset where we have no university. Better broadband will enable the public sector to better meet the needs of our rural and ageing population, and reusing existing public sector networks will help us do it most efficiently. Our plan will:

- Tackle digital exclusion, ensuring rural communities have the same access to services as urban communities. The Department for Communities and Local Government's March 2010 report on Next Generation Access showed that 75% of residents and businesses across our area are at high risk of digital exclusion, with 4 of our District Councils having a 100% of their areas at high risk of digital exclusion;
- Support delivery of the Big Society: connecting up our communities and giving them real control over their future, for example in developing community broadband hubs and giving them real control over their services.

**4.4 Our Plan has been driven by our communities and businesses** - ensuring that our Plan reflects the needs of consumers, businesses and public sector organisations. Our recent surveys have supported evidencing the strategic need for this Plan. We have gathered over 4820 views from two surveys conducted in March and April from our businesses, communities and citizens. These are telling us the vast majority of our consumers see improved connectivity as vital, to their day to day lives and their business performance and survival. The vast majority need improved speeds and are prepared to pay more for an improved service. Critically, the reasons why they want improved broadband have informed our approach to balancing speed and coverage. We will continue to actively engage our communities and businesses in delivering our Plan. Businesses will be represented through their LEPs who have a seat on our Programme Board. The wider business community will be engaged through our established networks, such as Connecting Somerset and the soon to be formed Heart of the South West Forum, and through key intermediaries, such as Chambers of Commerce and local business associations. Communities will have key roles in establishing community broadband hubs, active participation in our demand stimulation programme and in steering local delivery, through appropriate local delivery partnerships.

## **A2. Background**

### **1.0 Summary**

Current broadband services across our area are poor in terms of speed, reliability and bandwidth, and the market will not deliver the level of service needed by our businesses, communities and public sector. Consultants were commissioned by our Programme Board to conduct an assessment of current superfast broadband roll-out and to model superfast broadband roll-out to 2015. This analysis shows that the private sector is currently committed to deliver superfast broadband to only 38% of premises, and that by 2015 only 62% of our premises will have access to superfast broadband if left to the private sector alone. Our evidence base has been developed over a number of years and we have a good understanding of our 'not spots' and 'slow spots' and the issues being faced from regular business and resident surveys. This has enabled us to develop a robust understanding of the extent of market failure to inform the development of our objectives and to the approach set out in this Plan.

### **2.0 Slow speeds, unreliable service and poor infrastructure**

Across our area we have 8 district or unitary areas which fall into the UK's worst areas in terms of broadband infrastructure<sup>1</sup>. Adding to this is a report prepared for the South West RDA in 2010 by consultants showing that the proportion of premises not having access to 2Mbps was 24% in Devon and 21% in Somerset (and between 10 and 13% in other areas). Data provided by BDUK shows that average speeds are 8.2Mbps across our whole area, dropping to an average of 5Mbps in our white 'final third' areas (See Map 12 in Technical Annex). This masks considerable variation within our area, for example: BDUK modelled data shows that some areas have no connectivity (0Mbps), whilst better served locations have 22Mbps – a massive contrast. As well as this certain areas such as Plymouth, Frome, Exeter and Torbay access Virgin Media's network (offering 50Mbps connectivity, with the potential to rise to 100Mbps). Map 9 in the Technical Annex demonstrates premises and line length served by BT exchanges.

As requested, we have applied figures provided by BDUK. Whilst helpful, these figures are based in theoretical connectivity and therefore do not tell the whole story and the challenges our businesses and citizens are facing to keep apace have the same opportunities as the rest of the nation. Our own survey data shows speeds to be lower than this, and this is reinforced by our survey data, showing that services actually experienced by residents and businesses are likely to be slower and more unreliable. This evidence takes on board the intangibles, such as, contention, the antiquated infrastructure found in rural areas (including aluminium connections), long line length and poor internal wiring within premises.

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<sup>1</sup> National research by Point Topic (November 2010 Infrastructure Index)

- BDUK data shows that 3.96% of premises are in not spots (speeds of below 0.5Mbps) and 9.21% of premises are in slow spots (speeds of below 2.0Mbps).
- Our survey evidence (based upon 1,363 responses from businesses and 3,457 responses from residents) shows that 21% of residents believe they receive speeds less than 1Mbps, 43% between 1-4 Mbps and only 20% between 5 and 10 Mbps. Businesses fare worse, with 24% receiving speeds less than 1Mbps, 41% receiving speeds between 1- 4 Mbps and only 25% receiving speeds between 5 -10 Mbps. (See Map 22 in Technical Annex).
- Our survey also demonstrates that reliability is as much of a problem as speed. Services are particularly unreliable at times of high demand, and this has a real impact on our business community – who cannot rely on their connection as a robust business tool.

### 3.0 Current and committed superfast broadband coverage

The private sector has delivered or is committed to deliver superfast broadband to only 38.4% of our premises and these are mostly in our urban areas; this means that 25,983 business premises and 497,898 residential premises have no certainty that they will receive superfast broadband. These figures were produced by consultants and include all public announcements up to and including BT's announcements on 7 April 2011. It does not include the potential impact of Fujitsu's announcement on 13 April 2011, although an initial view is that the announcement does not affect the position established, i.e. the 'white' areas remain the same as the Fujitsu announcement is predicated upon securing public funding.

**Table 1: Superfast broadband delivered or committed by the private sector**

	Superfast broadband delivered or committed		Premises which may not have superfast broadband	
	% of premises	No. of premises	% of premises	No. of premises
<b>Somerset</b>	19.3%	46,474	80.7%	193,806
<b>North Somerset</b>	48.9%	43,686	51.1%	45,611
<b>Devon</b>	23.6%	81,860	76.4%	265,304
<b>Plymouth</b>	99.5%	109,357	0.5%	0
<b>Torbay</b>	71.0%	45,379	29.0%	18,559
<b>Total</b>	<b>38.4%</b>	<b>326,756</b>	<b>61.6%</b>	<b>523,881</b>

### 4.0 Future superfast broadband coverage

Consultants have forecast expected superfast broadband coverage by 2015, defined as the point at which it is accepted that the market will largely have completed its national superfast broadband roll-out, across our area. This shows that the private sector will deliver to only 62% of the area – falling to 53% of premises in the administrative areas of Somerset and 50% in Devon. This covers 29,934 postcodes, 13,544 businesses and 305,534 residential premises. That equates to around 700,000 people and 20% of our businesses. This evidences how our apparent digital divide between our major towns and cities and the rest of our area is only likely to widen, without public sector intervention. DCLG undertook research in 2010 that showed the areas across the country at the greatest risk of not receiving NGA connection speeds. Our area was at the greatest risk and this is illustrated in Map 19 in the Technical Annex. Forecasts also indicate that our area will suffer from a lack of competition. For example only 5% of premises in Somerset are likely to have two or more superfast broadband providers.

The basis of the analysis undertaken has included the outputs of our Early Market Engagement to ensure we factored in the plans of all operators. The method used by is a geotype approach designed for the Broadband Stakeholder Group<sup>2</sup> to forecast BT exchanges to be upgraded by 2015, based on BT's plans to deploy superfast broadband to two-thirds of UK premises by 2015. Our analysis therefore represents the best available forecast of the maximum extent of superfast coverage without public sector intervention, and reflects out early market engagement. Maps 7 and 8 in the Technical Annex show known and announced telecommunications infrastructure

The difference between current market delivery/commitments (table 1) and our forecast to 2015 (table 2) is a key input into our demand stimulation plan – ensuring that we raise demand in these areas to ensure that the market does indeed make these investments without public sector capital support.

<sup>2</sup> Broadband Stakeholder Group report titled 'The costs of deploying fibre-based next-generation broadband infrastructure', dated 08 September 2008, available for download at: <http://www.broadbanduk.org/fibrecoasts>

**Table 2: Forecast levels of superfast broadband coverage by 2015- split between business & residential**

	Number of premises (business and residential)				Residential premises with no superfast broadband	Business premises with no superfast broadband
	Total	2+ superfast providers (black areas)	1 Superfast provider (grey areas)	No superfast provider (white areas)		
<b>Somerset</b>	240,280	11,790	115,437	113,053	107,964	5,089
<b>North Somerset</b>	89,297	14,670	52,146	22,481	21,467	1,014
<b>Devon</b>	347,164	58,501	113,177	175,486	168,163	7,323
<b>Plymouth</b>	109,958	107,767	2,191	0	0	0
<b>Torbay</b>	63,938	31,891	24,159	7,888	7,760	128
<b>Total</b>	<b>850,637</b>	<b>224,619</b>	<b>307,110</b>	<b>318,908</b>	<b>305,354</b>	<b>13,544</b>

## 5.0 Usage

Our 2011 survey of 4820 residents and businesses updates the understanding of broadband usage and builds on previous survey and analysis work undertaken through regular business surveys conducted by all the local authority partners, and in particular, the Connecting Somerset and Broadband4devon projects. This is supplemented by other regional and national research conducted by organisations such as the South West RDA. Our survey shows that **the average spend per household is between £120 and £140 for their annual broadband subscription, and that the average spend per business is more varied with 37% paying between £120 and £240 and 32% paying between £252 and £360. From our survey we know our businesses and residents are not able to fully adopt and use ICT.** Businesses are using the internet for emailing suppliers and customers, supporting their marketing and undertaking some research. Residents are using their connectivity to access some public services, for research and for entertainment. The types of services businesses are not benefiting from due to poor and slow connections are, data transfer, reaching suppliers, generating sales, innovating and collaborating. Residents are not able to work from home, and their children are not able to use the internet to support their learning.

## A3. Local Broadband Context Evidence of Need/ Gap Analysis

### 1.0 Summary

Our evidence shows that our rurality, population density and topography, represent significant challenges to delivering superfast broadband. Above all it demonstrates the overwhelming need for our businesses, communities and public sector organisations for superfast broadband, and how critical superfast broadband is to delivering our economic growth ambitions, delivering our digital inclusion agenda and enabling public sector transformation.

**2.0 Our challenging topography** covers an area of 10,453km<sup>2</sup> (excluding Plymouth) much of which is upland, remote or coastal terrain, includes two National Parks (the largest expanses of upland areas in the South West) and more than 40% falls under a protected landscape designation. As Map 4 in the Technical Annex demonstrates we have the most challenging topography in Southern England

Given our topography, unsurprisingly we are one of the most sparsely populated areas in the county with an overall population density of 1.54 people per hectare, well below the national average of 3.97. Parts of our area are 'super sparse' – with West Somerset and West Devon having population densities below 0.5 people per hectare. DEFRA's classification of urban and rural areas shows that around half of the area is made up of 'hamlets and isolated dwellings' – the sparsest category. Maps 3 and 5 in the Technical Annex show our population density and rurality.

The cost of deploying a broadband network in our area is high. Consultants have compared the 'geotypes' in our area to the national averages. This shows that the proportion of premises in the last six geotypes (those with the highest cost of deployment) in our area is 58%, compared to 35% nationally. The geotype definition is the one conducted for the BSG fibre cost modelling study, which considers factors including population density, the number of lines connected to an exchange and the distance of premises to an exchange. The analysis is taken at a postcode level. It demonstrates that our area has significantly greater topology and network architecture challenges than the UK average.

Our area also suffers from significant transport constraints. Overall our area is ranked below average for transport connectivity, based upon an assessment of strategic infrastructure links. Major transport corridors are the M5 running from North Somerset and down into Devon, the constrained A303 corridor running eastwards and the A30 westwards to Cornwall. The area has mainline rail connections to Bristol, London and the north.

The decision not to electrify rail connections to the far South West adds to our competitive disadvantage. Having superfast broadband will encourage our businesses to trade across the globe, access new markets and reach new suppliers. Regional assets are set out in Map 1 in the Technical Annex.

Our businesses and residents are at high risk of digital exclusion. DCLG's March 2010 report on Next Generation Access showed that 75% of residents and businesses across our area were at high risk of digital exclusion, with 4 of our District Councils having a 100% of their areas at high risk of digital exclusion. This is presented in Maps 18 and 19 and highlights the degree our citizens are at risk of digital exclusion. The 2011 Indices of Multiple Deprivation show a significant part of our area has high levels of deprivation. There is a strong correlation between these areas and those receiving less than 2 Mbps broadband speeds. The same Indices also show large parts of our area are ranked as suffering from poor access to services and houses. Again there is a strong correlation between these areas and those receiving connectivity speeds below 2Mbps. Delivering improved broadband to these areas can support new jobs, raise productivity by enabling businesses to increase their competitiveness and create better quality and paid employment opportunities, potentially lifting some of these areas out of the lowest rankings of deprivation. The risk of digital exclusion is presented in Maps 16 and 17 in the Technical Annex and will support our prioritisation of roll out of our chosen technical solution, along with business need and the investment priorities in our growth areas.

We have a large rural economy representing more than two thirds of our total output. We know from our Surveys that current speeds do not meet the needs of our business community and Maps 12 and 14 in the Technical Annex show current broadband speeds by postcode, and where our businesses are located. This clearly shows the number of our economic hot spots that fall into areas with little or no connectivity and which are critical to the economic growth and well being of our rural communities.

Many of our growth areas and investment priorities are in locations where the market is not forecast to deliver superfast broadband on its own. Map 15 shows forecast areas of growth and investment priorities. This is particularly important in growing the low carbon sector, and for example the hi-tech sector in Torbay (where the key growth area is located in a white area).

Access to jobs and services is a real challenge. Large parts of the rural upland areas in Exmoor, the Blackdown Hills, Dartmoor, North and West Devon have no transportation other than that provided privately – distances and population densities mean that public transport is limited and often dependent upon limited public subsidies, which are and will remain under threat. Map 20 shows how access to public transport aligns with those areas where the market is unlikely to deliver superfast broadband – potentially compounding problems of rural isolation and exclusion. Poor broadband constrains the ability to work from home, meaning many in our rural communities have to travel to urban centres such as Plymouth, Exeter and Taunton for work. In North Somerset and the Mendips many commute to Bristol. This has a significant environmental impact and leads to significant congestion - many of our roads, including key routes such as the M5, are close to or exceeding the peak vehicle numbers for which they were designed. Broadband will act to overcome these significant transport constraints – for example through increased home working, distance learning and remote access to public services.

### 3.0 Public sector networks

Public sector assets have significant potential to be reused to deliver cost savings. Map 10 summarises public sector networks across our area, and Map 11 shows locations of the public sector estate. Similarly, delivering this Plan will lead to significant savings across the public sector in terms of the need for and cost of future public sector networks. The local authorities have analysed and mapped the key public sector broadband networks across our area. These include a Wide Area Network in Devon, the South West Grid for Learning network for education services, and Somerset's recent investment in a fibre based Wide Area Network (SomerNet). Public Sector locations connected to these networks have been mapped against areas where the market alone will not deliver superfast broadband ('white' areas) and this is set out in the Technical Annex. This shows that there is considerable potential to reuse these networks; for example 109 of the SomerNet locations are in 'white' areas. Our analysis suggests that there is a potential cost saving of £1.3m from reuse of the public sector network in Somerset alone.

Our approach to the reuse of public sector networks will be to ensure that through our procurement process the private sector fully considers the ways in which these networks could be reused to deliver cost savings and service improvements, and that any contractual constraints have been addressed. Reuse may include just the ducting and remote public sector locations to support the development of community hubs – for example delivering a wireless broadband service with a fibre connection provided from a village school. However, it is likely that the 'final mile' costs of delivering services from such community hubs will be substantial, and will need to be funded as a core part of this Plan. Given that these networks (fibre and ducting) are not owned by the

public sector there are significant legal and commercial issues that can only be resolved during the competitive dialogue process, including potential state aid issues. There are also likely to be technical issues in that the topology of WANs and FttC/FttP networks is different. For these reasons we have not included the cost saving from the reuse of public sector networks in our forecasts.

## A4. Scope of Project

### 1.0 Summary

Our Plan will deliver faster broadband for all by 2015, superfast broadband for most by 2015 and superfast broadband for all by 2020. Our Plan will make superfast broadband accessible to over 36,000 additional businesses (an increase of 113%) and over 800,000 residents (an increase of 122%) compared to existing private sector commitments to our area. It will deliver 50% take-up in 'white' areas and 25% take-up in 'grey' and 'black' areas: connecting over 14,000 businesses and nearly 280,000 people. It will deliver superfast broadband to businesses with a total turnover of around £9 billion. It covers over 10,000km<sup>2</sup> and tackles 5 upper tier local authority areas at once – delivering economies of scale, whilst ensuring that local control is retained and communities play a full role in shaping the delivery of services. It demonstrates our LEPs in action.

### 2.0 Objectives

Our Programme Board which includes the chief executives and lead members of our Local Authorities have committed to delivering the following objectives. Our approach to measuring our success in achieving these objectives is set out in section E3. Suites of performance indicators are being developed, some of these are likely to be part of our contractual arrangements with our delivery partner, and others will look at the wider benefits to businesses, public sector and communities which this will secure:

- **Objective 1:** Deliver 'standard' universal broadband for every home and business by 2015 that is reliable, robust, future-proofed, significantly better than currently experienced, and at least 2Mbps.
- **Objective 2:** Deliver 'superfast' broadband for at least 85% of homes and businesses in each upper tier authority area by 2015. We are mindful of the Government's target to achieve 90% superfast coverage by 2015..
- **Objective 3:** Ensure that delivery to 2015 enables the network to be upgraded between 2015 and 2020 to deliver 100% superfast broadband, and even higher superfast speeds where needed.
- **Objective 4:** Provide broadband access through at least 10 service providers offering services at prices equivalent to national averages, and achieving agreed benchmarks for quality of service and speeds experienced by end users.
- **Objective 5:** Support economic growth, enable digital inclusion and enhance our attractiveness to the telecoms market through an effective programme of demand stimulation ensuring take-up of standard and superfast broadband services by at least 50% of households and businesses in white areas and an additional 25% take-up in 'grey' and 'black' areas..
- **Objective 6:** Balance competing priorities in phasing roll-out to ensure that rural communities are not disadvantaged whilst ensuring that businesses receive the broadband they need when they need it.
- **Objective 7:** Deliver the best value for money solution without ongoing public sector subsidy by making the best use of public sector assets and facilitating the development of community broadband hubs where appropriate.
- **Objective 8:** Transform the way public services are delivered through moving as many services online as possible, developing innovative methods of delivering services, equipping businesses and residents with the skills and motivation to utilise these services effectively.

### 3.0 Core Partners

The core partners to the delivery of this Plan are the five upper tier local authorities:

- Somerset County Council
- Devon County Council
- North Somerset Council
- Plymouth City Council
- Torbay Council

The implementation of this Plan is critical for both our LEPS achieving their ambitions and both are therefore committed to supporting the achievement of our vision. Delivery of this Plan gives a powerful demonstration of the impact that LEPs can have and are committed to working with us to successfully implement this Plan. In addition the Plan has the active partnership engagement of all the District Councils covering of the area and of key business partners including local Chambers of Commerce, the Institute of Directors and small business organisations. Other public sector partners including NHS bodies in Devon and Somerset, the Further Education

Sector and the two constabularies for the area are actively engaged and committed to aligning this Plan with their service transformation agendas.

#### 4.0 Efficiency savings

By approaching this project jointly across the five local authority areas, we estimate will save the public sector £x million. The cost saving from running a single procurement and delivery exercise rather than separate procurement exercises in each of the local authority areas we estimate will save £x million. There are also significant efficiencies from running a single demand stimulation programme, and we estimate this saves a minimum of £x. Whilst these savings are significant, the crucial issue is that is highly unlikely that each local authority approaching this individually would be able to secure a high and sufficient contribution from the private sector – potentially representing a £xm efficiency saving. With such large land border between the local authority areas working jointly represents a far stronger proposition to the private sector.

#### 5.0 Geographical area and premises covered

The geographical area covered by our Plan is set out in Map 1 in the Technical Annex. The table below sets out the number of premises benefiting from this Plan and the postcodes being covered.

**Table 1 – postcodes and number of premises covered and in this Plan**

	Number of premises		Scope of our capital programme ('white area')	
	Superfast broadband delivered /committed by the private sector	Forecast superfast broadband coverage by 2015	Total number of premises	No of postcodes
<b>Somerset</b>	46,134	127,227	113,053	10,698
<b>North Somerset</b>	43,666	66,816	22,481	1,908
<b>Devon</b>	81,931	171,678	175,486	16,879
<b>Plymouth</b>	109,958	109,958	0	0
<b>Torbay</b>	45,588	56,050	7,888	449
<b>Total</b>	<b>327,277</b>	<b>531,729</b>	<b>318,908</b>	<b>29,934</b>

#### 6.0 Balancing speed and coverage

Our aim by 2020 is to deliver superfast broadband to all. We recognise that funding constraints mean that we need to balance speed with coverage. Delivering universal coverage of standard broadband as quickly as possible is critical to delivering digital inclusion and to enabling public sector transformation. Our communities and public sector partners are clear that service reliability is as important as speed. Having basic, reliable services across our area is a pre-requisite for radical public sector transformation plans. The development of this Plan has been guided by our Programme Board. It recognises that the way standard broadband is delivered needs to leave a clear path for upgrading services to superfast broadband over the medium term (such as FttC). There is a strong demand for superfast broadband, including demand for the highest speeds available (such as provided by FttP) from our business community. Based on modelling our business locations, profile and future growth plans the Programme Board identified that superfast broadband coverage of at least 85% in each local authority area was our minimum requirement. As set out in C2, the choice of superfast technology has a significant impact on total deployment costs, the level of private sector investment, and the requirement for public funds. The Programme Board considered that delivering, relatively speaking, lower speed superfast broadband to at least 85% of premises was more critical than delivering a lower proportion of even higher speed superfast broadband (such as FttP). The Board recognised that our success in competitive dialogue in phase 1, and delivery on the ground, will have a significant impact on our phase 2 plans (2015-2020). The Board therefore concluded to aim to deliver universal standard broadband with at least 85% superfast broadband by 2015, with universal superfast broadband delivered by 2020. The Board is mindful of the Government's aim to achieve 90% superfast coverage by 2015.

#### 7.0 Prioritisation of service levels and phasing

Our local prioritisation of areas and service levels will be established during competitive dialogue based upon the key principles set out in table 2 below. Our approach will involve breaking down our area into a number of discrete geographic areas. Detailed implementation plans for each area will be created. Before funds are paid over to our telecoms partner(s) deployment must be completed in each area as determined by acceptance testing procedures, and agreed contractual indicators achieved. We will engage local communities, businesses and other stakeholders in the development of these implementation plans and will work closely with planning authorities and, where works impact on the highway, coordinate with other works to minimise disruption.

**Table 2: Key principles to guide prioritisation of delivery**

Key principles for delivery during Phase 1
Delivery to rural areas to be balanced with delivery to more urban areas – to prevent cherry picking
Prioritising those areas with the greatest business density, need and future growth prospects,
Reflecting Local Enterprise Partnership priorities – for example growth plans for Exeter and the low carbon sector, including the low carbon cluster associated with the planned Hinkley Point new nuclear power station
Prioritising those areas where there is an identified need to support public sector transformation, especially where this has an 'invest to save' element
Alignment between demand stimulation and roll-out, ensuring that demand has reached identified targets at appropriate milestones
Ensuring that community groups and parish councils have sufficient capacity and time and to support and develop services such as community hubs
Taking full advantage, where appropriate, of efficiency savings associated with rolling out to areas adjacent to those to which the market alone will deliver superfast broadband to

Taking this approach will effectively balance commercial drivers and costs against our priorities to maximise the economic benefit, ensure that rural areas are not left behind, and ensure we deliver universal coverage. An example is ensuring we deliver superfast broadband earliest to sites linked to the nuclear supply chain, to attract overseas inward investment and support the development of the proposed new power station at Hinkley Point. We recognise that our priorities potentially compete and that each has cost implications. Evidence in the Technical Annex which will inform our approach, includes:

**Table 3: Evidence which will inform prioritisation in practice**

Key factors which will inform application of our principles for prioritisation	Technical Annex reference
Business locations and density mapped against the 'white' area	Map 14
Forecast areas of growth and investment priorities	Map 15
Areas of multiple deprivation	Maps 16, 17 and 18
Areas lacking access to public transport mapped against the 'white' area	Map 20
Travel to work areas	Map 6
Public sector networks and public sector estate	Maps 10 and 11

## 8.0 Role of community broadband hubs and public sector locations

We see community broadband hubs as having a key role in delivering superfast broadband to parts of the final 15% where we would otherwise not be able to afford to fully meet local aspirations in terms of speed, and might otherwise only be able to deliver standard broadband. We will make these happen through:

- Allocating funding, as part of our demand stimulation programme, to support training in developing community hubs and developing toolkits
- Securing additional funding where the demand is likely to be highest. For example in a key upland communities in the Exmoor National Park, where almost 50% of premises lie in the 15% which we have identified as most challenging. The Park Authority has set aside funding to support the development of community hubs – an approach we will seek to replicate in other remote and upland areas.
- Learning from the Rural Community Broadband Pilot (RDPE funded) that Devon and Somerset are currently undertaking and the procurement process which is currently underway. In addition to demonstrating a partnership that works in practice, this will further develop our expertise and knowledge and provide clear tools to support communities to develop community broadband hubs, including creating a community blue print.
- Fully exploring the potential of public sector locations to act as community broadband hubs. There is a particular opportunity to do so in Somerset, where an investment in a Wide Area Network means that remote schools and public sector locations are connected by a privately owned superfast network. This potentially offers substantial savings. However, the situation is complicated by the fact that these assets (fibre and ducting) are owned by the private sector and not by Local Authorities. This cost saving has not been reflected in our financial forecasts as it is only through the competitive dialogue process and further engagement with Parishes and Communities that it will be clear in which areas there might be a requirement and appetite for community broadband hubs, and whether in reality the market will find it cost-effective and practical to reuse these assets. The Technical Annex includes mapping showing public sector locations (Map 10).

## 9.0 Constraints and mitigation

Funding is the greatest constraint to our plan – our challenging topography, rurality and population density are ultimately reflected in the costs of delivery, as are commercial and legal factors like the extent and contractual status of Public Sector Networks. Our terrain and its natural beauty is also a constraint in that much of our

landscape is protected, potentially imposing additional constraints on planning permissions. Timing is a key factor for our area – if we are to make the most of the one-off opportunity to capitalise on the resurgence in the UK's nuclear new build industry then we need certainty of funding now. Constraints have been recognised in the approach set out in this plan and in the mitigation of risks set out in section E4.

## **SECTION B – CUSTOMER AND COMMUNITY ENGAGEMENT**

### **B1. Demand stimulation**

#### **1.0 Summary**

A strong, tailored and effective package of demand stimulation measures for business, public service users and citizens will ensure our Plan delivers its vision to secure economic growth and deliver digital inclusion. Our demand stimulation programme covers our whole area – reaching over 1.6 million people and 65,000 businesses. It aims to achieve a 50% take-up in 'white' areas and a 25% take-up elsewhere. It builds on our experience and successful track record of delivering similar programmes of support. No funding is sought from BDUK for this part of our Plan.

**Track record:** Our approach will draw on the significant experience we have in similar programmes. Connecting Somerset was recognised as one of 10 best practice projects throughout Europe at the 2007 'Bridging the Broadband Gap' conference, which set the basis for recent European broadband strategy and interventions.

**Our Customer base:** As set out in section B2, there is significant evidence of a strong demand from our customer base for improved connectivity – 87% of businesses and nearly 70% of residents are telling us they need improved connectivity. Our research clearly demonstrates the drivers for uptake of superfast broadband and the barriers faced. Of the 65,000 active businesses in our area we will target our support at micro, small and medium sized businesses, and key growth sectors. Our ageing population and public service users are another key target group. Our recent survey of 4,820 residents (summarised in B2) sets out the price levels that households and businesses are prepared to pay, and sets out the barriers that our Programme aims to overcome.

#### **2.0 Our demand stimulation strategy, scope and targets**

Our vision will be achieved by motivating and equipping consumers, communities and businesses with the desire and right skills to fully adopt broadband and use ICT. Our Strategy has a number of key elements; a significant targeted promotional campaign, a community support programme, a business support programme and a skills development programme covering businesses, consumers and public service users. Whilst our capital programme focuses on the 'white' areas where the private sector alone will not deliver superfast broadband, our demand stimulation programme will be implemented across our whole area, with a particular focus on the needs of businesses and communities in 'white' areas. Our programme will support 32% of all our businesses. The programme will aim to achieve:

- 50% take-up (160,000 premises, including 13,000 businesses) across the 'white' area where we will be deploying our technical solutions – driving greater future capital investment from the private sector;
- 25% take-up (130,000 premises, including 14,000 businesses) in 'grey' and 'black' areas to ensure that the market delivers broadband to our more urban areas.

Our work will utilise the national tools available, including those made available by BDUK, through the Big Society Broadband Project ([www.bigsocietybroadband.coop](http://www.bigsocietybroadband.coop)) and the Rural Broadband Project ([www.ruralbroadband.com](http://www.ruralbroadband.com)) which supports and enables community broadband projects.

#### **3.0 Our approach:**

##### **Businesses**

There are five key elements to our demand stimulation programme for businesses. These elements will be aligned to and support the wider economic development activities being undertaken by each of local authority partner, our district councils and the work of the two LEPs. A key area of alignment is to support ongoing business incubation and work hub programmes.

- Business transformation mentoring to provide bespoke and tailored advice to basic adopters;
- Interactive business animation events targeted at those sectors and areas which face particularly strong skills, knowledge and confidence gaps;
- Peer-to peer support using business associations, sector networks and from business support intermediaries (e.g. banks and accountants), to provide credible and trusted support to SMEs;

- Skills development workshops to equip businesses with the skills to utilise the opportunities created by superfast broadband, and sign-posting to further training. This will include sessions targeted at key sectors;
- A white label promotional campaign across the whole area, tailored to specific sectors and audiences, to drive take-up across our whole area – 65,000 businesses.

### Consumers, residents and communities

There are five elements to our demand stimulation programme for communities and residents. This has been developed in consultation with communities and has drawn on the knowledge we are gaining from the delivery of our Rural Community Broadband Pilot. We have had the benefit of input and a commitment of support from our community councils, parish councils and elected members in steering and implementing this part of the programme.

- Community champions will be effective advocates giving trusted advice and acting as ‘digital neighbours’, helping other members of their community gain confidence;
- Interactive community animation events targeted at those which face particularly strong skills, knowledge and confidence gaps. These will be delivered in communities;
- A programme of support, expert advice and a toolkit to support those communities who wish to develop their own community broadband hubs, building on our Rural Community Broadband Pilot experience;
- A skills development programme to equip basic adopters with the skills needed to utilise better broadband;
- a white label promotional campaign across the whole area, tailored to key audiences – such as the elderly;

### Public service users

Our support for public service users will be aligned with our public sector partners to support the implementation of public sector transformation plans. This element of the programme will focus on providing people with the confidence and skills to access services available online. It will target those groups most affected by public sector transformation– for example ensuring young people can access e-learning opportunities, or ensuring our older residents have the skills and confidence to fully utilise remote healthcare and social care. Part of the programme will support providers of services such as doctors and social workers to sign post the services available to communities and citizens. We will deliver this element of the programme jointly with our wider public sector partners.

### 4.0 Funding and delivery

A revenue budget has been allocated and approved by Somerset and Devon County Councils, Torbay Council and North Somerset Council to deliver this work. We expect these budgets will be supplemented by resources from a selected broadband partner in addition to their own marketing. No funding from BDUK is being sought to fund our demand stimulation plans.

Additional funding is being applied for from ERDF funding in the forthcoming months, which we anticipate being available from autumn 2011. Our area is an investment priority in the ERDF Competitiveness programme given our economic productivity challenges faced by much of our area. Dialogue with the South West RDA and other partners has resulted in a commissioned project being approved to support the roll out of super fast broadband and adoption of ICT by businesses. We will be applying for ERDF for additional capital and revenue funding. This will deliver an enhanced package of support to businesses including additional broadband services with free tutorials, business support and training to equip all businesses to adopt and use ICT more effectively. (See Table 1).

The Project Team includes a dedicated and suitably qualified project officer to lead on the delivery of this element of our local broadband plan, and ensures its integration with the rest of the project. The services of expert business support and communication consultancies to work with the team to deliver all parts of the programme will be commissioned. Additional staff support from several partners has been offered to deliver this part of our Plan.

**Table 1: Impacts and Benefits of demand stimulation programme and enhanced programme with ERDF support**

Activity	Expected outputs (minimum)	Additional outcomes with ERDF funding
Business support	12,000 business supported through animation events and mentoring	An enhanced programme of support for over

	3000 businesses engaged through peer to peer support	1200 businesses
Community support	5000 residents directly engaged through animation events Community Champions – indirectly engaging at least 3000 residents 60 communities supported in developing community hubs	
Skills Development Strand	6035 businesses up-skilled 6600 residents up-skilled	9,724 businesses up skilled
Promotional campaign	editorial coverage (advertising value equivalent); reach all residents	
Total		

## B2. Demand registration

### 1.0 Summary

We have engaged extensively with businesses and residents across Somerset, Devon, North Somerset, Torbay and Plymouth to understand demand for improved broadband. In developing this Plan we have engaged with 1,363 businesses and 3,457 residents, uncovering extremely high levels of demand. Fundamental issues raised by businesses, individuals and communities include the demand and desire for a fast, reliable and consistent level of service at a fair price. This information will be made available and will inform our competitive dialogue.

**Table 2 Key points from demand registration survey**

Business Responses (1,363 responses)	Resident's responses (3,457 responses)
24% currently receive a service of less than 1MB	21% report a connection speed of less than 1MB
87% see faster broadband as very important to their future	69% consider faster broadband as very important
37% would like to obtain a broadband connection of 50+MB	68% want to obtain a broadband speed between 21-50+MB
81% would like to obtain an improved connection	75% want an improved broadband
37% pay between £120 and £240 and 32% paying between £252 and £360	The average spend per household is between £120 and £240
The biggest impacts from improved broadband would be in increased business performance (89%), improvements to customer service (82%) and increased competitive advantage (62%)	A poor connection is the most common reason for not using the internet at home (42%), and 88% state that their current broadband speed isn't fast enough for them to undertake the online activities they would like

Our ongoing demand survey across our whole area is to date the most extensive and far reaching survey we have ever undertaken. We have received an unprecedented level of response – 4,820 responses by the end of April 2011 - that clearly demonstrates the importance of this issue with both businesses and residents. The survey explores current usage and speed, the barriers to adoption, levels of demand, pricing and the importance and future potential use of improved broadband. Detailed results are set out in the Technical Annex and Maps 21, 22 and 23 provide a spatial demonstration of current speeds, speeds needed and by when from our respondents.

### 2.0 Demand from businesses

The majority of our businesses (87%) want improved broadband. Businesses feel they are penalised by being located in a rural locations; they are unable to adopt new technologies and working practices; flexible and remote working is underused; the working day is planned around known periods of good and poor connectivity; clients are lost and opportunities are missed; growth is affected; and, in some instances businesses are feeling forced to relocate to other areas of the UK. It is also affecting business relocations prospects and thus inward investment. Compliance with online submissions, e.g. VAT and Inland Revenue are also issues.

A typical story is that of Oxford Instruments Plasma Technology in North Somerset: *"We export over 95% of our product so global communication is key to us. As a large business we can implement solutions for the main site but with more and more people working from home and needing to be in contact 24 hours a day the local broadband performance becomes a limiting factor for even large businesses like ourselves."*

### 3.0 Demand from residents

Residents tell a similar story to our businesses; they feel they are not getting the broadband service they are paying for and that the service they are receiving is inconsistent and unreliable. Simple online tasks, taken for granted in better connected areas, prove difficult or impossible to carry out. 74% of residents want improved broadband within the next twelve months.

As one respondent to our survey put it: *"I live just 200 yards off a main arterial road (A38) which connects the city of Bristol to the airport and Weston-Super-Mare, less than a mile from the edge of the Bristol conurbation, less than 4 miles from the centre of this city with a population of nearly 500,000 and less than 3 miles to an International airport, yet I have only even been able to get the slowest broadband (500kbps) and even that it not reliable and guaranteed."*

### 4.0 Demand from communities

Our analysis and investigation to date has uncovered demand for community broadband hubs in significant parts of Devon and Somerset. In Somerset 18 communities have been identified that have the appetite, enthusiasm and willingness to actively engage on a more practical level. Realising the ambitions of these communities will assist particularly those wanting to set up their own business from home as well as giving access to essential online public sector services.

### 5.0 Public Sector

The public sector across our area sees broadband as a key enabler of public sector service transformation. A more diverse market in public services involving social enterprise to a greater extent would benefit greatly from reliable universal broadband access. We are engaged with a wide range of public sector organisations to drive forward this agenda, working to incorporate superfast broadband into future policy and strategy and to develop opportunities that take advantage of improved broadband over the coming years. This has identified a number of key opportunities:

**Modern Working Practices.** Somerset County Councils 'Smart Office' programme which will connect council employees to work sites via 'internet technologies' and Devon County Council's flexible working policy – cutting ore eliminating commute times, assisting employee productivity, and saving significant amounts of money on property and associated infrastructure costs. A key dependency of this project will be the provision of good quality broadband at home locations.

**Education and Skills.** Education departments are planning to harness superfast broadband to create new virtual environments for active learning; building upon the recent investment in an advanced educational PSN (SomersetNet), and the South West Grid for Learning's investment. Primary and secondary students and adult learners from inside and outside of the area will soon be able to access high quality resources via video streaming and virtual education systems. A key factor will be the provision of good quality broadband at student locations.

**Healthcare & Adult Social Care.** Healthcare partners and community departments from across the area are creating an innovative new environment for health and adult social care, where patients, consumers, carers and professionals can access information. Collaborative systems allow faster, better monitored, more efficient and effective diagnostics of care services. Provision of good quality broadband at patient locations is critical for this to work.

**Law and Order.** Avon and Somerset Constabulary is planning to harness superfast broadband for the creation of a better connected and more efficient environment for the delivery and management of law and order, where officers and citizens can communicate via video and the web, where officers and staff can collaborate in real time through handheld and remote devices, and where officers can track and monitor offending behaviour via CCTV.

**Library Services.** In Devon over the past 10 years, citizens have generated a 1000%+ increase in total online transactions including renewals, reservations, and author, title and keyword searches - where 250,000 items were renewed online and nearly 70,000 reservations were made. The roll-out of superfast broadband could see users of e-library services increase to over 1.6 million transactions.

**On-line Citizen Services.** Members of public in Devon and Somerset are able to access hundreds of services online, including applying for permits, paying for services; reporting faults; requesting items; searching for reports and committee papers viewing maps and web cams. Analysis in Devon shows the cost of delivering face-to-face services is an average of £10.53 per service compared to an online transaction cost of 0.08p per transaction. This could represent an efficiency saving of £365,750 (Source: Race Online report October 2009).

Devon and Somerset County Councils are formulating and rolling out strategies to further streamline delivery of services on-line. In Devon alone, it is predicted that savings of between £0.5m - 1million will be generated annually, with commensurate benefits such as fewer car journeys and lower carbon footprint by residents.

## **B3. Stakeholders**

### **1.0 Summary of stakeholder engagement**

In developing our project we have engaged a wide range of stakeholders and have received 132 letters of support for this Plan. Through registering their views on our demand registration survey, we have received the support of 3,457 citizens and 1,363 businesses. We have also worked with and have support from key business organisations representing more than 40,000 businesses across our area. Examples of the letters of support are contained in the Technical Annex accompanying the Plan. The key groups we have engaged with are:

**MPs** – All 19 of our MPs are proactively supporting this Plan and have jointly signed a letter to Ed Vaizey MP, demonstrating cross party support and articulating the issues our businesses and residents face and their outright support for this Plan. Many of our MPs have been engaging their constituents and working with local media to raise awareness of our funding bid and promoting the demand registration survey.

**MEPs** – briefings and meetings have been undertaken with our MEPs and advice and information has been provided by many to help us in developing this Plan.

**Elected Members** – Leaders, portfolio holders, cabinet members and all elected members from Somerset and Devon County Councils, North Somerset, and Torbay Councils have been engaged in the development of this Plan. Support and financial commitments have been secured through formal committee processes and delegated powers of authority from each organisation. In addition we have the endorsement and support of Plymouth City Council. This support has been cross party within each local authority.

**National Park Authorities and Protected Landscapes** – our area has two National Parks, Dartmoor and Exmoor, which represent significant upland areas. Both National Park Authorities have been engaged in the project and have offered letters of support. In the case of Exmoor National Park, funding support has also been committed to support the development of community broadband hubs. Similarly other protected landscape partnerships have been engaged and have given their support.

**Local Authorities** – All district councils, parish councils and town councils across our area have been engaged in the development of this Plan. Meetings have been held with district colleagues from both the economic development and ICT teams, and each has contributed to the development of this Plan. This includes their e-strategies and the delivery of online services, information from their Local Development Agreements, their assets and business support activities. We have received formal letters of endorsement from thirteen district councils, thirty-two parish councils and five town councils.

**Local Enterprise Partnerships** – both the Heart of the South West and West of England Local Enterprise Partnerships have contributed to and been fully engaged in the development of our submission. Our Plan delivers a key priority for both partnerships and supports their economic growth ambitions to improve productivity, create new private sector jobs and raise average earnings.

**Businesses and Business Organisations** – We have throughout the development of this application constantly sought the opinions and input from our businesses. This is evidenced through 1,363 responses to our demand registration survey and the letters of support we have received. We have had over 60 letters of support from across the area. This includes letters from businesses organizations (including Chambers of Commerce and Industry, the Federation of Small Businesses, Institute of Directors, Business Link) representing 40,000 members in our area - over 60% of our businesses.

**Public Sector Partners** – Our Chief Executives have been liaising with a wide range of public sector agencies and partners. The project has the support of Devon and Cornwall Constabulary, Avon and Somerset Constabulary, from the Chief Executives from NHS Devon and NHS Somerset and from the Devon and Somerset Fire Service. All recognise the strong alignment of this project with their e-strategies and online delivery of services. In addition, FE and HE institutes have been engaged and are supportive of our project and are keen to work with us to offer additional online educational platforms and learning resources. Given the disparate nature of our population this represents a significant benefit to our young people and life long learning opportunities for all our residents. Part of this engagement has included working closely with the South West

Grid for Learning and reaching an agreement on the use of their points of presence to support possible backhaul options in our remoter communities.

**Communities** – We have worked very closely with our Parish Councils and have had the support of both the Community Council for Devon and Somerset in achieving high levels of engagement. Both Community Councils have offered staff support for the delivery of our Plan. Other community groups such as the Devon Towns Forum who represent all 28 market and coastal towns across Devon have endorsed and supported the development of the project. Communities with potential interest in establishing community broadband hubs have been engaged with.

**Residents** – We have publicised this project to our residents (with our local media campaign estimated to have reached over 450,000 residents), and received 3,457 responses to our survey. This, and the views represented through elected members have been key in shaping this plan.

## 2.0 Future stakeholder engagement to support project delivery

To support the delivery of this local broadband plan we have produced a stakeholder engagement plan, and this will be shared with our selected broadband service provider through our procurement process. The engagement plan covers our communications, engagement and consultation approach with all stakeholders. It sets out the key messages and target audiences and has been developed based on our collective experience and expertise on delivering other major infrastructure projects and running awareness, perception and changing behaviour campaigns. Examples include the award-winning Don't Let Devon Go to Waste Campaign, public engagement for the Exeter Science Park and managing road closures, including the M5 for the lifting of a new bridge into place. Our stakeholder engagement plan seeks to:

- Effectively communicate the need for superfast broadband to businesses, citizens, communities and our wider stakeholders, and to tailor the messages and benefits to each audience.
- Create awareness of issues to influencers and decision makers, including Planning Authorities, land owners, MPs, MEPs, Lords, elected members, highlighting the economic, social and digital inclusion benefits.
- Identify and engage with a range of stakeholders through different communications channels and create a series of positive messages for dissemination.
- Be transparent, clear and concise in all communication, promptly addressing queries and providing corroborative evidence.

## 3.0 Managing Delivery

Any street works and possible disruptions will be identified as part of the roll out and phasing of our infrastructure deployment. Our engagement plan will seek to raise awareness to communities and businesses likely to be affected by any such disruptions in advance, clearly communicating the reasons for and the benefits of the works. We will also work with the individual Traffic Management Units in each of our upper tier authorities, alongside our selected broadband partner to support the co-ordination of any street works with other utility and road work applications to minimise the disruption that may be caused. Once opportunities to jointly schedule works have been identified we will liaise with the communication officers at other utility providers and the Highways Authority to ensure joined up messages and information is given.

We will engage and work with local planning authorities (including District Councils and National Park Authorities) to avoid any delays from planning issues. We will continue to engage with key organisations, such as the Country Land Owners Association, to ensure that issues around way leaves can also be addressed to keep our delivery on schedule. The Project Team includes a suitably qualified project officer to lead on the delivery of this element of our Plan and liaise with planning teams, as part of a wider engagement role. An expert strategic communications consultancy will be commissioned to work with the team and Press Offices.

# **SECTION C – FINANCIAL INFORMATION**

## **C1. Funding Requirements**

### **1.0 Summary**

Our plan includes three inter-related elements: delivering a broadband network (capital), managing procurement and delivery (revenue), and a demand stimulation programme (revenue). To deliver our Plan to 2015 a BDUK contribution to the capital costs is required. The revenue elements of our programme are fully funded by approved local authority contributions to 2015. Our capital programme has two phases:

- Phase 1 - delivering universal broadband and at least 85% superfast broadband by March 2015
- Phase 2 - delivering universal superfast broadband by 2020.

The Local Authorities have committed significant capital and revenue funding towards Phase 1, and are seeking a significant BDUK capital contribution in this phase. Additional BDUK capital funding is indicatively required for Phase 2 of the capital programme, to supplement other funding.

## 2.0 Summary of funding requirements for Phase 1 - May 2011 – March 2015

Our modelling shows that the best value for money solution to meet our objectives for this period cost will cost £x. This will deliver superfast broadband to 85% of our area, connecting over 270,000 premises and will increase coverage of superfast broadband from 62% of premises to 85% in each local authority area. It will deliver better broadband for all - another 48,000 premises in some of the most remote and upland areas - ensuring that every business and premise has access to at least 2Mbps.

**Table 1: Phase 1 Proposed Funding Package**

Funding Source	Amount (£m)	Summary
<b>CAPITAL FUNDING</b>		
<b>Local Authority Contribution</b>		Approved by Devon and Somerset County Councils' Cabinets, and by the Exmoor National Park
<b>Private sector contribution</b>		To be secured through competitive dialogue
<b>BDUK Contribution</b>		A proportion of the total capital costs
<b>Other contribution</b>		Additional contributions being pursued – see C2
<b>Sub-total: capital</b>		
<b>REVENUE FUNDING</b>		
<b>Project management (project team and external advisors)</b>		Approved by all local authorities (Devon, Somerset, North Somerset and Torbay): See E1
<b>Demand stimulation</b>		Approved by all local authorities: See B1
<b>Private sector contribution: demand stimulation</b>		This is in addition to the marketing the private sector is likely to undertake: see B1
<b>ERDF: Demand stimulation</b>		Demand stimulation proportion of estimated bid to SWRDA ERDF Competitiveness programme: see B1
<b>Sub-total: revenue</b>		
<b>Total to 2014/15</b>		

The capital cost is based upon delivering Fibre to the Cabinet for 85% and a mixture of technologies (satellite and wireless) to the final 15%. Our approach is technology neutral so this does not represent a desired mix of technologies, rather an appropriate level of funding to deliver our objectives. We recognise that the competitive dialogue will determine the precise mix of technologies deployed.

**Here** there is a risk in that the other funding contributions may not be secured. To make our local broadband plan deliverable then either:

- public funding would need to increase
- the private sector contribution would need to increase
- cost savings would need to be found in the technical solution (explored in section C2),
- a lower specification and lower cost technical solution may be procured (explored in section C2),
- achievement of some of the objectives would need to be relaxed.

Our modelling suggests that if there is reduced funding then this is most likely to impact on what is provided to the final 15% of premises that will not have access to superfast broadband by 2015. Our modelling suggests that it should still be possible to ensure that all premises in the final 15% have access to broadband by 2015, but it may not be possible to provide them with broadband that is better than currently experienced and future-proofed. Until we go through a competitive dialogue process this will not be known with certainty.

## 3.0 Explanation of funding sources for Phase 1

### Local authority capital contribution

Full Cabinet meetings at Devon County Council and Somerset County Council have each approved a capital contribution, and have reflected this in their corporate capital planning processes. This funding is contingent on achieving an adequate level of BDUK funding to make our Plan deliverable. Exmoor National Park has committed funding. Given the significant financial constraints facing Local Government these are significant commitments. As reflected in our risk register, we are currently reviewing the accounting treatment of local

authority contributions where the asset is ultimately owned by the private sector. Devon and Somerset County Councils, North Somerset Council, Torbay Council, West Devon Borough Council, South Hams District Council have all committed revenue funding to this programme, with District Councils and other organisations have promised staff time.

### **Private sector contribution**

The private sector contribution will be secured through the competitive dialogue process set out in sections D and E. Detailed modelling work carried out for us explored the costs and likely private sector contribution based upon different mixes of technologies. As set out in C2, this identified that the best value for money solution to deliver our objectives was 85% FttC, 5% satellite and 10% 3Mbps wireless. This mix of technologies is only relevant for costing and funding purposes – our approach remains technology neutral and we expect that a very different mix of technologies will be delivered in reality. The assumptions used to calculate the expected private sector contributions are set out here.

### **BDUK Contribution**

The BDUK capital contribution represents around x% of the total capital costs for Phase 1, and represents a cost per premise for our 'white' area. Whilst higher than the notional grant per premise this reflects our challenging rural topography and our low population density. Modelling shows that 58% of our premises are in the six highest cost geotypes, compared to a national average of 35%.

### **Other Capital contributions**

The local authorities are following up all available funding streams, and taking innovative approaches to securing additional financial contributions. There is a significant risk that the other capital contributions required will not be achieved in full.

## **3.0 Delivery**

### **Phase 1 delivery - Programme set-up and procurement - May 2011 –June 2012**

Our project team is fully funded, in place, appropriately skilled, and ready to go. Expert external legal and technical support to supplement our team is being procured and will be in place by August 2011. Based on expert advice and our experience from procuring the Rural Community Broadband Pilot we anticipate awarding our Broadband Supplier contract in June 2012, although we are endeavouring to shorten this timescale. Our plan ensures that sufficient time to set up our programme robustly, undertake a competitive dialogue process to secure the best deal from the private sector, and achieve state aid approval.

### **Phase 1 delivery – Programme Delivery - July 2012 – March 2015**

Our approach is to deliver a single three year programme commencing in September 2012 and concluding by January 2015. Within this we anticipate breaking down our area into smaller discrete geographical areas for the purposes of managing delivery at a local level, to support effective contract management, allow for private sector capacity constraints and ensure our phasing aligns with supporting the development of community hubs, public sector transformation and our demand stimulation programme. The principles which will guide our approach (set out in section A4) to delivery may compete with commercial realities and have cost implications. We will seek to balance these within our procurement process.

Our indicative phasing of capital expenditure is an equal split in funding in the years 2012-13, 2013-14 and 2014-15. This is on the basis that our detailed delivery plans within Phase 1 will be determined through the competitive dialogue process. Precise timings of payments will also depend upon the need for any up-front payments, the detailed costings developed through the competitive dialogue process, and the lag driven by requiring payment only when key performance indicators have been met. It will be important to ensure that stage payments, once contractually agreed with BDUK and the service provider, do not – as far as is possible – move between financial years.

## **4.0 Indicative funding requirements in 2015 – 2020**

Our priority for 2020 is to achieve universal superfast broadband and to fully realise the benefits of better broadband – through continued public sector transformation, delivering digital inclusion and supporting economic growth.

The total cost is based on delivering FttC to 100% of premises, as modelled by consultants – though the technical solutions are likely to vary in practice. Where possible we will also aim to deliver even faster superfast speeds to key business growth locations, for example through FttP. These costs are dependent upon the

solution we procure and deliver in Phase 1, so are indicative at this stage. A BDUK capital contribution is sought. As in Phase 1, no revenue contribution would be sought from BDUK.

## **C2. Funding Structure**

### **1.0 Summary**

Robust modelling was undertaken to ensure that the Programme Board had the appropriate information on which to assess technical solutions. This has identified solutions which deliver our objectives to achieve economic growth through increased business performance, digital inclusion for our communities and support for public sector transformation by delivering improved broadband and delivering a significant proportion of superfast broadband.

The total cost of Phase 1 of our plan ensures delivery of superfast broadband to at least 85% of premises in each local authority area and at least 2Mbps to the remaining 15%. Choices of technology are purely for the purpose of developing an affordable funding structure, and will not prejudice our technology neutral approach. Our modelling has produced:

- Forecast of expected superfast broadband coverage if left to the market
- Cost modelling of a variety of solutions based on their nationally recognised Broadband Stakeholder Group fibre cost modelling study;
- Cost modelling of different approaches to balance speed and coverage;
- Potential cost savings associated with Somerset's Public Sector Network.

Further details on the modelling applied can be found in the Technical Annex.

### **2.0 Delivering superfast broadband**

The need for at least 85% superfast broadband is confirmed by our evidence of need and demonstrated by our Demand Survey. To effectively balance speed with coverage our proposed technical solution is to deliver FttC to 85% of premises – delivering superfast broadband to over 270,000 premises that the market will not deliver to without our support. Such an approach is deliverable by 2015, affordable, is supported by our Early Market Engagement outcomes, and will increase coverage of superfast broadband from the 62% we forecast that the private sector alone will deliver to. Costs are critically dependent upon the number of premises subject to market failure, so a key aim of our demand stimulation programme will be to encourage the private sector to maximise the area it provides superfast broadband to without public support.

The Programme Board conducted an options appraisal, based upon the Analysis Mason modelling, and considered a range of technologies for a range of coverage levels required, and for a range of levels of take-up (this is set out in the Technical Annex). The costing is based upon an FttC/VDSL network topology and includes all costs associated with passing and connecting homes – i.e. including the fibre backhaul to street cabinets, new street cabinets and active equipment, civil engineering, connection and migration costs and in-home costs.

Given that these costs are modelled, it is likely that the cost achieved through competitive dialogue might be different. It will depend significantly on the detailed ground level surveys undertaken by potential suppliers, their confidence in take-up and revenue streams, the efficiencies they can achieve in rolling out across such a large area and the strategic importance they attach to winning this contract. This provides one means by which costs may fall to make up for any funding shortfall (or may rise increasing the shortfall). Reducing the specification of superfast broadband may also provide a mechanism by which costs are reduced: reducing take-up assumptions to 25% reduces modelled costs (but is likely to have a significant impact on outcomes), whilst only modelling the costs of passing homes rather than connecting homes (i.e. excluding connection and migration costs and in-home costs) could potentially reduce costs further. This may increase the cost to users and hence impact upon take-up.

### **3.0 Delivering universal broadband**

Our stakeholder engagement, evidence and gap analysis clearly demonstrated that to achieve our vision we need to deliver much better 'standard' broadband for the a large proportion of our area that is currently a 'not spot', 'slow spot' or area of 'poor service', and to do this in a way that is future-proofed, enabling delivery of superfast broadband for all by 2020.

Whilst a mixture of different technologies are available to deliver a universal service (including ADSL2+), the choice at any one location will be based on the local conditions. We have demonstrated the level of market failure in delivering standard broadband across our area in section A2. We know that roll-out of these technologies is constrained by long line lengths, distances from exchanges, areas that do not have existing

cabinets (See Map 9), aluminium rather than copper cables - for example across parts of Exmoor. To underpin the Programme Boards options appraisal consultants modelled the costs of a number of technologies to deliver standard/universal broadband (over 2Mbps) to the final 15%.

The Programme Board reached the conclusion that the costs of tackling the final 15% should be taken from a combination of technical solutions as set out in table 9 below. No single technical solution would be likely to be appropriate for all of the final 15%, given the challenging topography, low population densities and constraints in the existing network. For example, a fully FttC/VDSL solution is likely to be constrained in areas that do not have existing cabinets or localities with prohibitively long line lengths. Costs are also likely to vary between those modelled and those based on the type of ground level surveys that would be conducted during the competitive dialogue process. This will ensure that appropriate funding is available to:

- conduct an effective competitive dialogue with a realistic likelihood of the private sector providing a mix of future-proofed solutions;
- support the development of community hubs;
- reflect the fact that costs are likely to vary based upon detailed ground level surveys;
- reflect the fact that topography may constrain the choices of technologies deployed locally.

Whilst satellite forms part of our cost modelling for the final 15%, our businesses and communities have significant concerns about a satellite only solution, feeling that it does not provide them with the reliable service they need. Our approach remains technology neutral and we would expect that the precise mixture of technologies delivered in practice will be different. Potential cost savings may occur from the re-use of public sector networks.

Costs and requirements are most difficult to forecast in the final 15%. Without defining the geographic area of the final 15% it is not possible to be definitive about the current speeds available, though given that BDUK data shows that over 9% of premises currently experience speeds below 2.0Mbps, it is reasonable to assume that most premises in the final 15% cannot currently access standard broadband. The actual speeds available and the technology currently being used matters because as well as ensuring that the final 15% all have access to standard broadband, we aim to ensure that all premises have broadband significantly better than currently experienced and that our deployment up to 2015 enables the network to be upgraded to provide superfast broadband by 2020.

So whilst there may be ways in which we can deliver our objectives with lower funding (for example if the additional contributions set out in C1 are not available) this may require a greater proportion of satellite broadband. It may be that, if funding is limited, we might need to relax the requirement that all premises receive faster broadband than they do now, and instead focus our resources in the final 15% on ensuring that all can access standard broadband, and improving the network in a way that makes it easiest to provide upgrades to superfast broadband by 2020. Given the minimal difference in modelled cost between FttC (home passed) and 3Mbps wireless for the final 15%, it may also be possible to secure more than 85% superfast broadband, though it is likely that we will need to be successful in securing additional funding if we are to achieve the aim (announced by DCMS Ministers following submission of this plan) of 90% superfast broadband.

#### **4.0 Capital expenditure and asset ownership**

Long term commercial viability and a fair and open market led approach are critical to delivering our objectives. We therefore anticipate that the private sector would own all infrastructures and that the public sector contribution would be in the form of a grant. The accounting treatment of such an approach is currently being reviewed, to ensure that the local authority contribution can be capitalised. More detail on our commercial model is set out in Section D.

Funding for each phase will only be paid to the telecoms partner on completion of key contractual milestones, such as service availability and quality and the sign-up of an agreed number of service providers. The scheduling of payments and actual spend will reflect the achievement of these milestones. This will form part of our contract discussion during our procurement exercise.

## **SECTION D – COMMERCIAL INFORMATION**

### **D1. Commercial Case**

#### **1.0 Summary**

Our approach is to adopt a gap funding model, building in a pay back mechanism to support the ongoing financial viability and sustainability of our infrastructure solution.

We have conducted an options appraisal on the different commercial models that could be applied to our project, evaluating each in terms of how it would deliver our objectives. There are options to tailor and combine these models to draw out the best from each. From our appraisal, we anticipate that we will apply a gap funding model, building in a pay back mechanism to support the ongoing financial viability and sustainability of our infrastructure solution.

The strengths of a gap funding model, with a payback principle applied are that it:

- benefits from numerous successful precedents elsewhere in the UK, helping reduce risk;
- will maximise competitive tension within the market, helping us secure best value for money;
- stimulates and commits private sector capital investment;
- allows payback and income sharing options to be applied based on achievement of take up targets;
- encourages innovation and commitment from the private sector;
- enables us to work with the market to maximise the potential re-use of public sector networks;
- allows us to specify the phasing and prioritisation of areas, levels and quality of service required and delivery timescales in light of the cost implications.

The impact of the asset being owned by the private sector on the accounting treatment of local authority contributions is currently being explored. This approach requires good contract management. We also recognise that its success relies on our ability to make our proposition attractive to the market. We are however confident that the scale of our Plan, including the demand stimulation programme, and our public sector investment will achieve this. Our project team structure provides dedicated resources on contract management to manage and deliver this approach.

#### **2.0 Other approaches considered**

We examined an 'Own and Operate' and 'Build on Public Sector Networks (PSN)' as part of our options appraisal. The principles of the "Own and Operate" model require the public sector to own or part-own the infrastructure, and to operate services. This approach can involve setting up a Joint Venture with a telecommunications partner. Our analysis noted the positives (control over delivery; an asset with value; share of income stream) of this approach, and concluded these were outweighed by the negatives which included running a service outside the core public authority function; requirement for ongoing investment and associated financial and reputational risks. The "Build on Public Sector Networks (PSN)" model extends the 'Own and Operate' option, using public sector networks to deliver superfast broadband. This was discounted as whilst our networks reach into the 'white' area, they are under contract and privately owned. There are examples of this approach being successful deployed elsewhere in the UK, but difficulties to 'sign up' the mainstream internet service providers was felt too great a risk to our Plan.

### **D2. Market engagement**

#### **1.0 Summary**

Devon and Somerset County Councils, through the Rural Community Broadband Pilot have developed experience of undertaking state-aid compliant early market engagement. This, in conjunction with procuring expert legal and technical advice will ensure that we have an appropriately skilled and experienced team to undertake market engagement. Our modeling of 'white' state aid areas (set out in the technical annex) is supported by our early market engagement which we have undertaken specifically to support this Plan. This has helped us understand the market's three year plans for our area. Prior to submitting state aid notification this early market engagement will be updated.

#### **2.0 Our approach**

We recognise that our procurement approach needs to embrace a fully open and transparent process to avoid potential challenge and therefore delays to implementation. In developing our Plan we have engaged with a full range of suppliers of all broadband technologies, ranging from major UK suppliers to local suppliers. This engagement built on the early market engagement programme undertaken during 2010 (in preparation for our

Rural Community Broadband Pilot procurement). This informed us of suppliers' current and planned capabilities and service developments in our area, their views on how to best solve our current disparity of broadband provision, their growth and investment plans, the needs of suppliers entering the rural broadband market, and the appetite and challenges associated with reusing public sector networks. Our approach to market engagement was technology neutral, and we treated all suppliers consistently to understand:

- The technical capabilities of suppliers/operators within the local and national broadband market and how applicable this is to our largely rural topography.
- Suppliers' investment plans and how these align with our objectives for this project
- Key needs of suppliers to enter our market and what we can do to aid this.
- Exploration of suppliers' appetites to partner with us and invest their own resources in deploying an infrastructure solutions and support for demand stimulation activities.

Our future market engagement will be undertaken through our formal procurement strategy outlined below.

### **D3. Procurement Strategy**

#### **1.0 Summary**

**Our procurement options appraisal has identified that supporting the framework being conducted by BDUK and undertaking a mini competition from this framework is the most appropriate procurement strategy for our programme. The framework will be supported by an umbrella state aid notification and will not require us to liaise directly with the EU commission. The procurement framework will appoint either a main supplier, a prime contractor with sub contractors or a consortia.**

#### **2.0 Our Approach**

Our Programme Board have reviewed the benefits and drawbacks of procuring our technology partner ourselves compared to buying our solution under a call off from the national procurement framework being conducted by BDUK. From this review it has been decided to support the procurement framework on the basis that we can:

- actively participate in the framework procurement,
- influence the evaluation strategy and have the flexibility to adjust weightings for call offs and
- the framework and call off no later than September 2012.

Running in parallel to supporting the framework procurement we will develop our call off requirements. This will include:

- outcomes driven solution
- detailed plans for demand stimulation,
- roll out schedule and prioritisation (implementation plan),
- data mapping of population density, topology and available assets,
- solutions for community hubs,
- economic priorities,
- leverage and cost models, cash flows and payment milestones and
- reporting requirements on performance.

Our engagement with the market going forward will be through the framework procurement. A key aim will be to ensure that small and medium sized businesses, and local suppliers (be they civil engineering contractors or specialist broadband suppliers) are fairly able to access the opportunities created.

There are risks associated with this approach and a full assessment of these has been undertaken by our Programme Board. We will participate actively in the competitive dialogue phases and evaluation of the framework and will be represented on the national framework board overseeing the delivery of the framework. We will therefore be able to influence and challenge the process to deliver the outcome we require. We also believe we will be able to overcome the risk of under capacity from suppliers creating a low response to our individual competitive dialogue procurement strategy and will benefit from best practice and a wider pool of knowledge and expertise. The framework approach will also deliver better value for money through sharing costs and resources.

There is a greater risk that local companies may not be able to participate to the full extent that might be possible if we procured on an individual programme basis. We will seek to create options for flexibility in the supply chain at call off to mitigate against this risk.

Delivery of the Framework will be led by the core team at BDUK and supported by their external advisors. Our programme team and external advisors will add to this resource and skills set.

## **SECTION E – DELIVERABILITY**

### **E1. Project management, resourcing and funding**

#### **1.0 Summary**

This is a jointly delivered project. Somerset County Council (SCC) is proposing to act as the accountable body for any grant agreements and contract negotiations with BDUK. The overall governance will be through a Project Board with high level representation from all partner organisations. This will include senior officers and elected members.

#### **2.0 Governance**

The Programme Board commissioned specific legal advice to develop an appropriate governance arrangement to oversee the delivery of our Plan. The outcome from this work is a decision to apply an administrative arrangement. Under this SCC and the other local authorities will make arrangements for the discharge of functions relevant to the delivery of the Plan jointly. Administrative arrangements between local authorities involve exercising statutory powers (sections 101 and 102 of the Local Government Act 2000 and sections 19 and 20 of the Local Government Act 2000 and associated statutory instruments) to make arrangements under which one local authority arranges for another local authority to exercise functions on its behalf. The use of a Programme Board can provide the benefit of streamlined decision making, as that Board would take strategic decisions which would avoid the need to go back to individual councils for every decision. The use of a Programme Board also helps ensure good transparency and accountability in shared decision making.

The role of the Programme Board will be to steer the programme to ensure achievement of the strategic benefits outlined in this plan, overseeing delivery of the procurement, rollout, demand stimulation and skills uplift projects. The board will include voting and non-voting members, with voting rights reflecting funding commitment and risks. Our account manager from BDUK will be invited to attend the board. Membership of the board will include lead members for economic development from the local authority partners. Representation from our two Local Enterprise Partnerships will be through non-executive roles. Involvement of key stakeholders (including wider public sector partners such as the NHS and Police) will be secured through membership of existing forums and through establishing specific task and finish groups, if appropriate. Our wider governance structure will set out the involvement of businesses and business organisations, District and Parish Councils, communities and MPs.

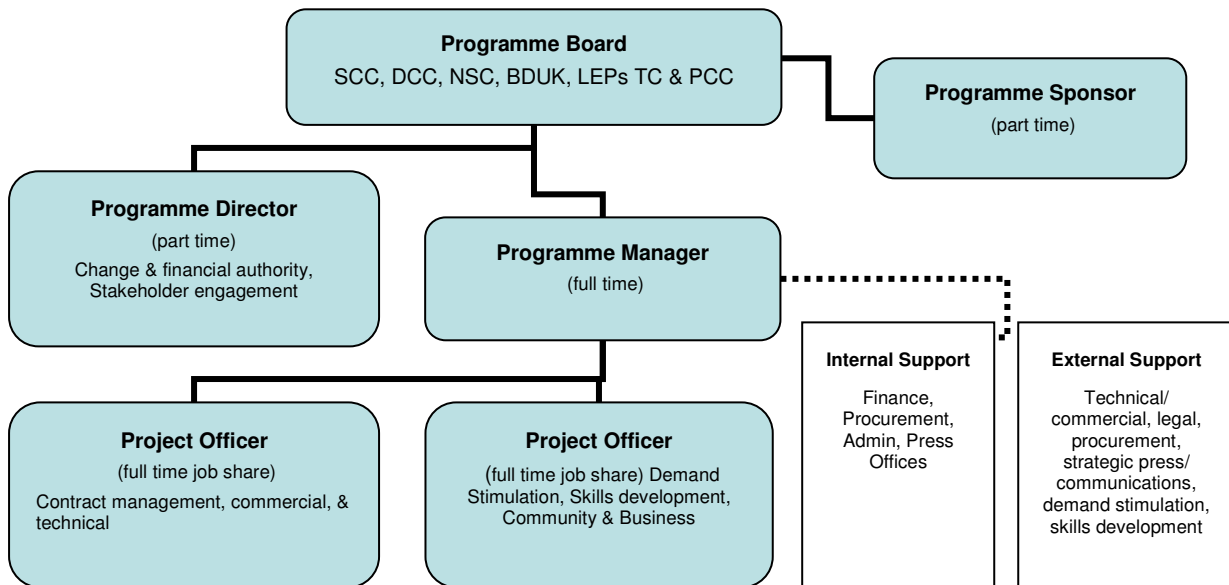
#### **3.0 Project Management Structure**

The Plan will be managed by Somerset County Council with support from Devon County Council, North Somerset and Torbay Councils. All authorities have an extensive track record in managing and delivering large complex community focused infrastructure schemes.

Recognising the complexity and timescale involved in this project a dedicated project team is being established. This team will be co-located in one office for the majority of their time and none of team will be allocated on a less than half time basis. The programme will have a Director and a full time Project Manager, and two Project officers (see diagram below). Local Authority partners have agreed to fully fund the project management, including through secondment of lead officers and the provision of in kind contributions. The Programme Sponsor will be x.

Throughout the project PRINCE2 principles will be applied, with team members appropriately accredited. In addition they will be supported by dedicated support staff familiar with working with external partners and European funding streams. Specific support will include a suitably qualified senior finance officer, senior procurement officer, and Press Officers.

Our procurement and state aid notification will be managed by the Project Team with specific commissioned external support from a legal specialist and a technical specialist and a close and collaborative working arrangement with BDUK. We have already established effective working relationships with colleagues in Cornwall and Northern Ireland and are benefiting from the work on procurement, contracts and state aid that they have successfully completed. Devon County Council has recently made a state aid application for the Rural Community Broadband Pilot and has experience of state aid issues. Similarly external support will be commissioned to delivery our demand stimulation programme and will be managed by the Project Team.



## 4.0 Funding and Resources

Somerset County Council and Devon County Council have each committed additional revenue resource to cover the project management, delivery and demand stimulation activity, North Somerset Council have committed funding and other partners (including District Councils) have committed funding. This is in addition to their staff time and alignment with core economic development budgets that will support the project. Expenditure is set out in table 6 on page 21. The capital and revenue commitments of Somerset and Devon County Councils were made at Council meetings on 28 March 2011 and 13 April 2011 respectively. Reports and minutes are available on their websites.

In addition to the above, the South West RDA are looking to allocate a team member to work with each project proposed in the Region and further discussions are currently underway to determine additional support for this work moving forward. The South West RDA has been proactive in the development of the superfast broadband agenda across the South West region. Although now in transition and closure, they have continued to provide support through both research and hands on support for this work. They have indicated that following a recent Board meeting it is the wish of the Board and the Executive to continue to provide this support over the current financial year, within budgetary and closure programme constraints.

## E2. Timetable

### 1.0 Summary

Our project is large and complex, in terms of scale and the number of partners involved. We have therefore split it into four inter-related parts to provide focus and support the Programme Board in carrying out its strategic direction setting and overall monitoring and control. The four parts are:

- Programme and Governance Set-up
- Superfast Broadband Procurement
- Superfast Broadband Delivery
- Demand Stimulation (including Animation and Skills Development).

### 2.0 Our Approach

This Plan is signed up to by all partners and effectively is our project initiation document. All partners are therefore committed to the vision, business case, expected benefits, resource allocations, quality controls, timescales and identified roles. The approach has also been scrutinised by the Programme Board as it has developed. Having this consensus and commitment will ensure that the project benefits at the start from having a combined and collective partnership effort to drive it forward. The outline timetable for the four parts of the project is set out below. Following submission of our Broadband Plan BDUK informed Local Authorities that it was developing a procurement framework under which Local Authorities could conduct a call-off to procure a supplier meeting local needs. This framework is not yet in place, and both the framework and a local procurement have risks and benefits. The programme board has not yet made a decision on which procurement route to follow. The high level timetable set out below is not expected to change under either route, though the detailed work programme would change substantially:

Outline Timetable	2011-12	2012-13	2013-14	2014-15
Programme set up				
Procure broadband supplier				
Deliver broadband				
Demand stimulation				

Each part is broken down into several work packages and these are outlined in detail in our attached Project Plan, which includes a spend and funding profile against each. The plan demonstrates the inter-dependencies between each work package and across each part. We have drawn on our experience of running other similar projects in developing our Project Plan and are confident that our Plan is achievable within the planned resources. The project is not dependent on securing any additional funding, outside of a successful funding award from BDUK and securing our outlined match funding from the private sector. In section B1 we have indicated how we intend to secure additional EU resources to scale up our demand stimulation activities and provide greater support to businesses. This project can still deliver to time, budget and output without this additional funding support.

There are a number of potential risks to the project delivering to time and budget and against its **critical path**. Key elements of the critical path are:

- Securing and finalising BDUK funding (necessary to enter into a procurement exercise),
- Deciding upon procurement approach (procurement framework or local procurement),
- Securing state aid approval,
- Appointing a broadband supplier,
- Securing planning permissions necessary to enable work to be undertaken.

Based on our experience and knowledge of running similar infrastructure procurements, including our current Rural Community Broadband Pilot Project, we have factored in a realistic timescale to try to compensate for such issues. Delays in entering into procurement are likely to have an equal delay on awarding a contract and commencing delivery. The Broadband targets that we and our selected suppliers will achieve will be finalised through competitive dialogue. We are applying a **PRINCE2** project management approach and will set time tolerances for each part and work package to ensure tight management controls are in place. To ensure the project is kept on track if tolerance levels are exceeded, exception reports will be taken to the Programme Board. The reports will include appropriate options and any Exception Plans will be produced if required. Having **BDUK** and our **Broadband Supplier** fulfilling the roles of **Senior User** and **Senior Supplier** on the Board will ensure that any such issues are considered in full and all risks and issues addressed.

We recognise the requirement indicated in the State Aid guidelines that requires the private sector to provide wholesale access for at least seven years and we will ensure that mechanisms are in place at the end of the delivery programme that oblige the private sector partner to meet these wholesale access requirements.

Key Milestone	Expected Date
Project definition approved by local bodies	May 2011
<b>Framework OJEU</b>	<b>June</b>
<b>PQQ Deadline</b>	<b>August</b>
Prequalification complete	August
Issue ITPD	September 2011
Issue ISDS	October 2011
Issue ITCD	December 2012
Issue DITSFT	January 2012
<b>Submission of Final tenders</b>	<b>February</b>
<b>Framework Signature</b>	<b>May 2012</b>
Demand stimulation project defined	Sept 2011
<b>Commencement of demand stimulation and registration</b>	<b>September to January 2012</b>
Interim Programme Reviews	March 2012, March 2013, March 2014
Programme review, final audit, dissemination, handover to state aid monitoring project	March 2015

## E3. Expected Strategic Benefits

### 1.0 Summary

The Plan will have a significant strategic impact at both national and local level. Nationally, the Plan will make a significant contribution to the Coalition Government aims for superfast broadband roll-out, also realising good value for money for BDUK via the scale of our partnership. It will also make a significant contribution to the Coalition Government's aim of creating the competitive environment for private sector led growth and recovery. Within Devon and Somerset the delivery of the Plan will make a significant strategic impact on our economic competitiveness and business productivity, public sector transformation and efficiency, community well being and realising the "Big Society". Key strategic impacts in each of these areas are outlined below.

### 2.0 Economic competitiveness and business productivity

We estimate that delivery of this Plan will raise GVA by £0.75 billion across Devon and Somerset by 2020.

- **Improving competitiveness and connectivity of Devon and Somerset.** Distance from markets is a critical competitive issue for SMEs across Somerset and Devon. Physical distance, limitations in our road and rail connectivity and no rail electrification programme disadvantage our enterprises and which can be addressed by the step change in digital connectivity this Plan can provide;
- **Improving business productivity.** As outlined in section A2, large parts of Devon and Somerset have business productivity (measured by GVA per FTE worker) below the national average. There are considerable opportunities to improve business productivity in our area as a result of this Plan. Examples include financial efficiencies (online management of banking, accounts and taxation information and records), improved marketing (easier and faster marketing of goods and services, access to distant markets), cost savings through the adoption of 'smart' technologies and improved productivity through labour efficiencies and process improvements;
- **Increasing innovation.** Again Devon and Somerset have low levels of innovation (e.g. low levels of patent registrations by businesses compared to the national average). Product and process innovation is increasingly reliant on broadband technologies and the increased availability of superfast broadband delivered through this Plan will increase business competitiveness and productivity in Somerset and Devon as a result. Similarly the development of broadband allows the acceleration and automation of information flows between companies, which enables an increased specialisation in knowledge-intensive activities which currently have low concentrations across our area;
- **Benefits for our land based industries.** The land based industries are a strong feature of the Devon and Somerset economy and a sector experiencing considerable change. Roll out of super fast broadband across Devon and Somerset will deliver ICT connectivity to significant areas of rural uplands including Exmoor and Dartmoor National Parks and other hill farming areas which have a strong focus on land based and agricultural industries. Benefits to farmers and land based industries of improved broadband access are numerous. DEFRA requires farmers to be online to facilitate the transfer of up to date bio-security and legislative information. Functions that can often be undertaken more easily and quickly online include management of livestock passports, British Cattle Movement Service updates and management of deliveries and collections for produce and equipment.

### 3.0 Public sector transformation and efficiency

Implementation of this Plan will be critical to driving the transformation and efficiency improvement of local authorities and other public bodies operating in Devon and Somerset. We expect these benefits to be realised through cost savings that mitigate the impact of reducing public sector budgets on service delivery and in improving accessibility of services to residents and businesses. As set out in B2, this includes the role of superfast broadband in increasing flexible and home-based working, modernising working practices and reducing office costs across our public sector partners – examples include Somerset County Council's "smart office" programme. Benefits for residents and businesses include improved access to information and services on-line, with particular benefits to the inclusion of remote communities and key customer groups including older people. Key wider public sector benefits include developing e-health and e-learning – and delivering these services in different ways has potentially significant advantages: e-learning provides greater accessibility, opportunities for self-paced learning and the flexibility to respond to different learning styles are also potential benefits to learners.

### 4.0 Individuals, community well being and realising the "Big Society"

Better broadband speeds and access will bring strategic benefits to local communities and individuals, the voluntary sector and social enterprises across Devon and Somerset. Implementation of the Plan will increase social capital by extending voluntary networks and creating new opportunities for communications within communities, extending the "reach" of third sector bodies that we expect to have an increasing role to play in the delivery of local services. As with the public and private sectors, superfast broadband will bring efficiency benefits to the third sector, making it possible to deliver services at lower costs. Given our dispersed population

across Devon and Somerset this Plan has a significant role to play in combating digital exclusion and increasing happiness and well-being for residents – helping them access employment opportunities, making it easier to work more flexibly, enabling them to stay in touch more easily, supporting people to stay in their own home, enabling them to use e-learning and e-health, internet shopping and access entertainment opportunities. And it isn't simply that with superfast broadband the same things can be done faster, completely different services will be available.

### 5.0 Environmental benefits

Superfast broadband access facilitates more home working and flexible working, paving the way for reductions in commuter flows and transport emissions. Carbon emissions from transport make up one third of all emissions. Rural areas such as ours could benefit most from this opportunity. In addition it has been suggested that ICT could cut global 'business as usual' greenhouse gas emissions by 15% by 2020.<sup>3</sup> This reduction is estimated on the basis of business adoption of 'smart' technologies and methods in logistics, business premises, energy monitoring and product/activity choices.

### 6.0 Monitoring benefits

Monitoring the realization of benefits from this Plan will require a combination of quantitative data and qualitative case study information. We will develop an impact assessment methodology which measures strategic impact on our economic competitiveness and business productivity, our public sector transformation and improvement and community well being. This will include measures of positive impacts, such as GVA benefits and impact on costs and efficiency. Ongoing monitoring will be funded by the local authorities. An initial set of measurable outcomes is set out in the technical annex. Further work will be required on these outcomes, including to ensure that the non-economic and non-financial benefits to local communities are adequately monitored.

## E4. Risk management / Risk Log

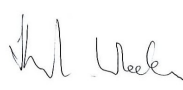
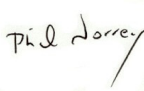
**A high level risk log is set out below, summarising the more detailed risk logs that have been prepared in accordance with Prince 2 methodology. The Programme Board owns and regularly reviews these risks. Appropriate mitigation is set out below.**

Risk		Risk Assessment (low, medium, high)		Threat to project/mitigation
No	Description	Likelihood	Severity	
<b>Procurement, programme management and governance</b>				
1	Failure/delay in obtaining state aid notification	L	H	M: Develop robust procurement strategy with BDUK & legal advisors. Use staff with state aid experience. Ensure team has capacity. Ensure satisfy national and EU requirements
2	Insufficient capacity and resources to manage the programme	L	H	M: Identify adequate resources. Put expert team in place with appropriate external support. Robust governance arrangements monitor progress. Fall back plans developed
3	Disagreements amongst upper tier local authorities delays delivery or lead to the partnership failing	L	H	L: Significant engagement between senior officers and members in developing the bid, strong legal and inter-authority agreements, clear, strong, representative and open governance
4	Local Authority partners are unable to fund their share of the revenue and capital costs	L	H	L: Get proper authorisation for revenue and capital costs. Get clearance that LA capital can be used to gap-fund infrastructure. Robust project planning ensures that forecast costs are adequate. Legal agreements cover sharing of costs.
5	Legal challenge from unsuccessful bidders delays programme	M	M	H: Strong BDUK, legal and expert technical input, robust procurement strategy, experienced team, learn from others
<b>Commercial &amp; Funding</b>				
6	Failure to attract a suitably qualified broadband supplier that will deliver objectives, for example due to capacity constraints in the market	L	H	M: Early Market Engagement, developing a scale of approach attractive to a wide variety of market players. Rapid start of procurement and delivery, extensive demand stimulation and availability of public sector assets de-risks our plan for the market
7	Failure to secure best value due to weak competitive tension during procurement	L	H	M: Competitive dialogue process managed by an experienced team with expert support, early market engagement testing alternative models (e.g. joint ownership)

<sup>3</sup> 'SMART 2020: Enabling the low carbon economy in the information age', The Climate Group on behalf of the Global eSustainability Initiative (GeSI), 2008.

8	Fail to get sufficient suppliers to ensure a competitive procurement	M	H	M: Liaise with Ofcom to understand the regulatory view of PIA and other remedies being considered to improve competition
9	Unable to achieve sufficient private sector investment	M	M	M: Ensure demand evidence is robust and acknowledged by the private sector, and that demand stimulation is effective
10	Failure to secure sufficient funding to deliver our objectives, including ERDF funding	M	H	H: Significant local funding commitment, fully exploring all funding sources with BDUK (including DEFRA Uplands Funds, European, wider public sector funding e.g. NHS), robust modelling, demand stimulation planned ERDF funding risk
11	Technical, legal and commercial barriers prevent the most effective reuse of public sector assets	L	M	M: Mapping and analysis of public sector gives clarity on potential scope to reuse, and identifies and resolves any issues which constrain their reuse. Costing assumptions prudently do not assume that reuse will be made of such assets.
12	Detailed surveys by teleco increases costs of delivery	M	M	H: Robust analysis by consultants to accurately forecast costs and develop realistic objectives. Competitive dialogue process.
<b>Delivery</b>				
13	Delivery by private sector does not meet standard or expectations	M	H	H: Strong contract management, close contact with supplier and ISPS, stakeholder engagement plans manage expectations
14	Demand stimulation fails to raise take-up/realise benefits	M	M	M: Experienced teams with appropriate capacity to manage programme, and resources appropriate to objectives
15	The wider public sector does not fully utilise to transform service delivery.	L	H	M: Senior level engagement and commitment in place; Stakeholder engagement plan will ensure coordination of activity.
16	A lack of interest/capacity constrains community hubs	M	M	M: Stakeholder engagement plan, targeted training and toolkits, securing learning from current Rural Broadband Pilot.
17	Planning permission/way leaves leads to delays in delivery on the ground	M	L	L: Significant engagement with planning authorities, dedicated officers linked to project team, learning lessons from current roll-outs
18	Pace of technological change outpaces solution	L	L	L: Phasing of project and mechanism to reinvest excess profits, Future proofing critical element in procurement;
19	Failure to secure ERDF and demand stimulation funds	M	H	M: Active engagement with SWRDA in developing the ERDF commission, develop fall back plans.
20	Delivery costs exceed available budget due to unforeseen challenges	M	M	H: Clear expectations set out in contracts, robust contract management, and phased delivery.

### CEO sign off

<b>Submission: In submitting the Devon and Somerset Local Broadband Plan, I verify that the proposal fits with corporate policy</b>	
<p>Signed: </p> <p>Sheila Wheeler, <b>Chief Executive, Somerset County Council</b></p> <p><b>Council Date: 18 April 2011</b></p>	<p>Signed: </p> <p>Name: Phil Norrey, <b>Chief Executive, Devon County Council</b></p> <p><b>Council Date: 18 April 2011</b></p>

### Technical Annexes excluded from this version